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National Temperance League (U.S.)

An essential factor in business efficiency

London

1913

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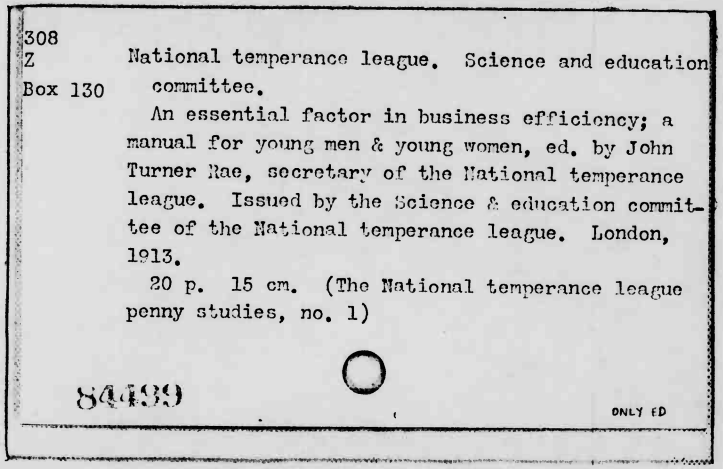

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NUMBER ONE.

The Studies.

TENTH THOUSAND.

IN THESE STUDIES THE EVIDENCE PRESENTED IS DERIVED FROM AUTHENTIC SOURCES, AND BEARS THE AUTHORITY OF THE SCIENCE AND EDUCATION COMMITTEE OF THE NATIONAL TEMPERANCE LEAGUE.

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Secretary of the National Temperance League.

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AN

ESSENTIAL FACTOR

IN

Business Efficiency

A MANUAL

FOR

YOUNG MEN & YOUNG WOMEN.

EDITED BY

JOHN TURNER RAE,

Secretary of the National Temperance League.

ISSUED BY

THE SCIENCE & EDUCATION COMMITTEE

OF

THE NATIONAL TEMPERANCE LEAGUE

Paternoster House, London, E.C.

1913.

THIS MANUAL

has been prepared with a view to its perusal by young men and women just entering upon business life, who, if they desire to do the best for themselves, for their employers, and for their country, should be fully informed upon the relations of Alcohol to mental and physical fitness, which are the prime factors in

BUSINESS EFFICIENCY.

The evidence presented was derived in part from the addresses delivered at a remarkable conference in the Mansion House, on February 7th, 1912, over which the Lord Mayor, Sir Thomas Crosby, M.D., presided, supported by no less than fifty leading members of his own profession; the large audience being representative of every official, business, and financial interest in the City.

Sept 11, 1912 a RC

THE ACTION OF ALCOHOL UPON THE HUMAN ORGANISM.

DEFINITIONS.

IT IS IMPORTANT to be clear upon the actual meaning of terms.

ALCOHOL is usually and erroneously described as a *stimulant*, whereas it is a narcotic poison, the product of the breaking-down, either by fermentation or distillation, of natural substances containing the elements of sugar.

"ALCOHOL is not a stimulant but a sedative, as was long ago pointed out by Sir Samuel Wilks," says Sir James Barr, M.D., the president of the British Medical Association. Further, "Alcohol is a poison—so is strychnine; so is arsenic; so is opium. It ranks with these agents. Health is always in some way or other injured by it." This opinion expressed by the late Sir Andrew Clark, Physician to H.M. Queen Victoria, is becoming more generally accepted by the Medical Faculty of to-day.

THE HUMAN ORGANISM "is not an individual but a social mechanism—always bringing us at last to *cells*," says Professor Virchow, the celebrated Berlin Pathologist. Hence by studying the influence of Alcohol upon protoplasm, of which the cells consist, and upon the healthy character of which bodily vitality depends, evidence may be gained by which more clearly to interpret the human experiment.

PROTOPLASMIC POISONS.

RECENT SCIENTIFIC RESEARCHES have led to the most important discoveries, opening up an infinite range of beneficent knowledge of how to avoid those toxins which are injurious to human protoplasm. The whole trend of sanitary medicine is to determine the presence of and to extirpate specific germs, which are insidiously conveyed in the air, in our food or drink, and produce such diseases as diphtheria, tuberculosis, or enteric fever.

The human fabric may in its constitution be compared to a great city, inasmuch as its units, or cells, are charged with specific duties, *e.g* : " Just as the work-people of a nation are collected together into factories, so the cells of the body are packed into organs, and these organs do their work either well or badly according to the condition of their individual cells, whether these are healthy or are more or less exhausted, degenerated or poisoned."

Alcohol is now recognised as one of the most prominent protoplasmic poisons, and so great is its toxic influence in interfering with the power of cell-tissue to assimilate oxygen—which means life—that its results are seen in the shape of fatty degeneration and other maladies. The effect of small doses of alcohol upon a uni-cellular organism is seen from an experiment by the late Sir B. W. Richardson, M.D., showing that in water charged with *one* part of absolute alcohol to 1000 parts of water a medusa was dead in five minutes, whereas a companion in plain water from the same source remained active and unaffected.

THE SEAT OF INTELLIGENCE.

THE HIGHER DEVELOPMENT of the Brain which distinguishes the human from other animals is constantly arrested by the action of alcohol upon its cells, in a greater or less degree in proportion to the quality of its powers. An inherently *fine* mental organism is especially susceptible to the influence of drugs and may rapidly degenerate to the plane of the coarse and debased mind which seeks its satisfaction in the lower sensations and desires.

" The brain is the dominant organ of the whole body, for not only are all our mental powers dependent on its healthy activity, but even such vital functions of organic life, as the beating of the heart, and the movements of the chest to maintain breathing—functions on which life itself entirely depends—are sustained by the activity of the brain and spinal cord. Only when the brain is intact are the processes of thinking, feeling, and willing possible ; only when the brain is well nourished and free from poisons can these processes be accomplished in perfection. The growth of the brain continues for thirty years, during which time it is particularly sensitive to the influence of drugs, to overstrain, and to lack of proper food."

Professor Clouston says : " From the medical and scientific point of view we have this great physiological fact before us, that the first thing alcohol does in 99 cases out of 100 is to affect the mental working of the brain of the man who imbibes." To this may be added the evidence of Professor Sikovsky, of St. Petersburg, that " Alcohol diminishes the rapidity of thought, makes the imagination and power of reflection commonplace

and deprived of originality; acts upon fine and complex sensations by transforming them into coarse and elementary ones; provokes outbursts of evil passions and dispositions, and in this way predisposes men to strife and crime and upsets habits of work and perseverance."

JUDGMENT AND CONTROL.

"THE INTRICATE guiding and controlling mechanism by which all our bodily functions are regulated and maintained in action is called the nervous system. It is the machinery of our thoughts, our emotions, our memory; it directs the movement, voluntary and involuntary, of every muscle; it controls the secretion of all our glands, and governs in fact, every function of the body."

The fibres which impart nervous energy throughout the human organism essentially consist of slender threads of protoplasm, and originate in nerve corpuscles, the larger of which are concerned with motor impulses, the smaller ones with sensory impressions. The researches of Professor Kraepelin, at Heidelberg, show that even very small doses of Alcohol hinder work-production and decrease the power of continuity of exertion.

But the vital consideration that must be taken into account is thus stated by Kraepelin, "The powers of conception and judgment are from the beginning distinctly affected, although he who takes the alcohol is quite unconscious that it has this effect. The actual facts are exactly the opposite to the popular belief. I must confess that my own experiments, extending over more than ten years, and the theoretical deductions therefrom, have made me an opponent of alcohol."

Dr. Johnson also even in his day, recognised the effect of alcohol upon the higher psychical functions of the brain, saying, "This is one of the disadvantages of wine, it makes a man mistake words for thoughts." As alcohol attacks first the highest centres and functions, only later overwhelming those of organic life, judgment and control are the first things to fail. Hence we often find the effects of what is regarded as a moderate use of alcohol upon the nerve cells exhibited in defective memory, mental fatigue, depression, hysteria, epilepsy, neuritis, all unconsciously to the subject, leading in combination with other concomitant disabilities to paralysis and insanity.

THE PHYSICAL FORCES.

THE HEALTHY VIGOUR of the human body demands its adequate nourishment by proper food and pure air, to ensure which the efficient performance of its contributory functions is essential. The processes of digestion, circulation, and respiration must not be hindered by the presence of injurious germs, nor by the administration of harmful drugs. The toxic action of alcohol upon the digestive organs is exhibited in gastric catarrh, and its effect upon the process of digestion is not only to delay the churning power of the stomach but also, by narcotizing its sensory nerves, to mask the resulting dyspepsia which in consequence gradually becomes chronic.

The function of the food is to provide bodily energy and heat, to build up, and to prevent waste of tissue. Alcohol does none of these things, as Naval, Military, and Engineering experience has

definitely shown. Sir James Barr says, " Alcohol is not a food in the proper acceptance of the word " ; thus confirming the statement of the late Sir Spencer Wells, M.D., F.R.S., that " it is only lately we have begun to regard alcohol in its true light, as a drug and not as a food." But the evil effects of alcohol are seen in its action upon such vital organs as the liver, kidneys, and heart.

" Alcohol when taken in moderate amount is practically entirely absorbed by the stomach. . . . and is in consequence carried straight to the liver " sometimes producing fatty degeneration, and fibrous growth of tissue. These conditions also accrue in the kidneys with consequent deficient action ; thus the body becomes subject to numerous physical troubles, such as " rheumatic pains," mental depression, loss of appetite, sickness, and other symptoms of impaired digestion. It must, of course, be remembered that different people are affected in different ways by the action of alcohol. In some the nervous system succumbs quickly, whilst in others, in whom the nervous tissue is more resistant, the irritant action of the alcohol upon the liver and kidneys has time wherein to manifest itself, and various disorders gradually arise in those organs.

" The Blood is the Life " is an axiom frequently enjoined upon the public attention, and truly the condition of the blood and of the vessels for its circulation largely governs the happiness and length of life. By paralysing the controlling cardiac nerves, alcohol imposes an excessive burden suddenly upon the heart. Re-action, however, comes within one minute, at the end of which period diminished power is registered, and

repeated use of alcohol produces hypertrophy and dilatation of both heart and blood vessels, with fatty degeneration of the muscular fibres.

RESISTANCE OF DISEASE

But it is in its effect upon the blood cells that alcohol is the supreme danger to the life of man. " The blood is a mixture of corpuscles and a fluid known as the blood plasma The corpuscles are of two kinds, red and white." The former are very minute, 3,000 of them placed side by side would make a line one inch long ; the latter vary in size and appearance but all contain nuclei and are therefore true cells ; there is only about one of them to 500 red corpuscles.

" It is now about twenty years since the illustrious scientist, Professor Metchnikoff, of the Pasteur Institute, Paris, announced to the world his discovery that the white corpuscles have the power of destroying the microbes to which so many of our diseases are due. These white blood-cells are the standing-army or policemen of the body, and their duty is to attack, and, if possible, to destroy any foreign matter, such as dust, or disease germs, which may gain an entrance. They attack the germ by throwing out processes of their protoplasm, enclosing it and afterwards digesting it.

" If microbes or chemical irritants are present in one particular part of the body, these white blood cells leave the blood vessels in the neighbourhood in large numbers and stream towards the point affected. They then attack the germs and seek to destroy them. In so doing they are, many of them, in their turn destroyed, and their dead

bodies, along with the fluids of the inflamed tissues form matter or pus,'' familiar as exhibited in cut or wound, in boil or abscess.

Remembering the toxic action of alcohol upon cell life, it is easy to realize its effect in inhibiting resistance to disease by narcotizing the phagocytes—the superior white corpuscles—practically ' making the policemen drunk,' thus proving alcohol to be a bond-servant to evils as bad as and sometimes more fatal than itself. Other properties which the blood possesses for the purpose of resisting disease also appear to be similarly interfered with. The abstainer from Alcohol, as is well-known, can through the power of his effective repelling force the more successfully resist the inroads of the tubercle-bacillus, the typhoid or pneumonia germ, or summarily destroy them if they should obtain an entrance.

THE AUTHORITIES,

upon whose evidence the preceding statements are made, may be consulted in '' Alcohol and the Human Body,'' by Sir Victor Horsley, F.R.S., and Dr. Mary Sturge, the most complete work published in recent years on the scientific basis of the temperance question (1s. net, Macmillan) from which the unacknowledged quotations, and many of the paraphrased statements have been taken. No reader should be satisfied to accept the facts as stated without further study, a pursuit which, it may be predicted, will be found to be one of great interest and increasing fascination.

THE HARM OF INTERMEDIATE DRINKS.

By Sir Thomas Barlow, Bart., K.C.V.O., M.D.,
President of the Royal College of Physicians,
Physician Extraordinary to H.M. the King.

How many young fellows, who have taken no '' stimulants '' whatever during the whole of their school life, directly they enter the University, or business house in the city, begin to take brandy and soda with their mid-day meal. What is the explanation ? Brandy and soda is certainly not, at first, a very pleasing beverage ; it does not inspire any enthusiasm in the majority who adopt it for the first time ; it cannot be pretended that a healthy young man feels any physical need of it ; it is really and truly a custom copied from older men.

If a man has a little nausea, or stomach disturbance, alcohol may temporarily relieve that discomfort, and this is brought about by its undoubted influence in lessening the sensitiveness of the nerve endings ; but this is not a real benefit. Pain and discomfort are often Nature's own danger signals, and the question may well arise, with such a complaint, whether there is not some offending body which ought to be removed ; the '' refresher '' in this case is practically a mode of disguising the danger signals ; it is not treating the cause.

Our young friend may also tell us that his inter-

mediate drink brightens him up, and, if he has got any difficult job to do, that it gives him courage. This needs to be carefully considered. The effect of alcohol on the brain varies at different stages and according to varying quantities . . . but even small quantities produce a certain amount of exhilaration. There is, first, the greater afflux of blood which is no doubt responsible for a temporary increase of the activity of the brain cells, and it would seem that after the initial activity of the cells has been roused, owing to their increased blood supply, there supervenes a certain degree of removal of control and deficient conduction from the cells through the fibres.

There *is* no doubt initial increased activity of the nerve cells ; but there is also diminished control ; the cells run riot, so to speak. A man becomes more eloquent, or perhaps we should say more fluent, but he loses his sense of proportion, he lets himself go, he gives himself away, he is less discreet than he ought to be. This is illustrated in the proverbs of all nations, " When the wine is in the wit is out." " In vino veritas." That is, under the primary influence of alcohol a man forgets or ignores the caution which he would otherwise employ and gives his neighbour information which in sober moments he would keep to himself.

There is a common saying that alcohol gives courage. No doubt in many cases it renders a man less mindful of risk and danger. Thus it makes him reckless, but nevertheless it blinds him to the existence of many perils, and it lessens his sureness of aim and accuracy of observation. This is another instance of the removal of the higher control. But observe the rapidity with which the

stages replace one another. Besides the initial activity of the cells, we have to remember that the conduction of nerve vibration becomes lessened, but it is at all events fairly certain that the capacity for the performance of fine movements, which depends upon the maintenance of both driving power and conducting power is lessened.

It ought never to be forgotten that the initial activity tends to be replaced by a state of sluggishness. That is another way of saying that alcohol is at first a stimulant and then becomes a sedative. . . . If a man who is not accustomed to alcohol takes more than a small amount, it is a familiar experience that he finds himself reluctant to undertake any serious muscular exertion, and only too glad to be allowed to rest awhile. Muscle and nerve have much in common in regard to their responsiveness to various drugs, and it cannot be denied that alcohol lessens real muscular activity. No trainer of athletes worthy of the name sanctions the use of alcohol for anything requiring staying power.

Every tyro knows that multiplied nips are far more disastrous than an occasional debauch, following periods of abstinence, in the production of permanent damage. That permanent damage may be summed up in one word—degeneration. Most important of all, general degeneration of the bloodvessels, but varying degenerations of liver, kidneys, stomach, brain and nerves, sometimes picking out one organ, or one kind of tissue, sometimes another, like other selective poisons, and varying with individual idiosyncracy or inherited weakness of certain organs. Let us never forget that alcoholism annexes itself to other damage and exaggerates it, that it lessens the power of resistance

to acute illness like influenza, and pneumonia, that it diminishes most notably the capacity to bear trouble and misfortune.

We are justified in insisting to all young men who come under our influence that not one of us is fully aware of the latent weakness to which we may be specially susceptible in regard to drink craving. What ghastly variety we find about the periods of life at which men may take to drink and how strange are the recurrences of the drink habit after long intervals of abstinence. Gentle nurture, good upbringing, the possession of a charming character, which is amiable, intelligent, æsthetic, even chivalrous, happy home life, golden prospects —not one of these gifts is any guarantee against grievous failure in this besetting sin. And there is this one deadly characteristic about indulgence in alcohol, that the eyes of the victim become blinded so that he often fails to realize at first his danger, or the gravity of his fall.

I have spoken throughout of the unjustifiable custom of what I have called intermediate drinking, but may we not now go one step further and beg our young friends to learn both by example and precept that the greatest safety, and the greatest satisfaction come from abstinence in their social evening gatherings, and at ordinary meals as well as at intermediate periods. This is not asceticism, it is reasonable and manly prudence. It means self-control and a sacrifice of a definite pleasure, and of a certain amount of the social amenities of civilization. But let us never forget that the law of sacrifice underlies the best endeavours and the best achievements of our lives.

THE DRINK DANGERS OF ADOLESCENCE.

By Sir Thomas Clouston, M.D., F.R.S., *Lecturer on Mental Diseases, Edinburgh University; late Superintendent of Morningside Royal Asylum.*

There is one period of life which of late years has been most carefully studied by scientific men. That is the age of adolescence, the formative and developing period of the brain and of all its higher functions of emotion, will-power and intelligence.

We put down the period of adolescence now as being from the age of fifteen to twenty-five. The earlier part of it from fifteen to twenty has certain markedly strong characteristics, but is liable to certain distinctive pitfalls, and the latter period, from twenty to twenty-five, has also its strong and weak points. During both periods a regular process of development is taking place in the brain, in the mind and in the body.

In the first half of adolescence muscle is active, and physical bulk and strength are being accumulated; in the latter period the higher qualities of mind, will-power, duty, self-control, appreciation of good literature, the seriousness of life and the religious and moral instincts in their larger senses are developed. Especially there is an enormous difference between the two periods in those highest of all human qualities, self-control and "thoughtfulness."

The brain is still growing in the earlier period of adolescence ; in the latter period it has reached its full bulk, but its higher qualities are steadily improving. As a machine and vehicle through which mind works, new and delicate connections are being made between its various parts in the first period while in the last it is making its trial trips and testing in all directions its capacity for safety at full speed. The one age has plenty of physical courage, moral courage comes in the other. The diseases to which the one is subject are represented by the convulsive troubles, such as epilepsy, while the diseases of the other period are represented by mental troubles and hysteria.

There are certain modes of testing the bodily and mental characteristics of adolescence, which have taken lately a more scientific form than was the case long ago. The most striking of these investigations into adolescence was made a few years ago by a German Professor, Dr. Kraepelin. With the thoroughness and effectiveness of the investigator, he subjected a number of students to the influence of moderate doses of alcohol for a period of three weeks for the purpose of studying its effect on the mind, brain, and the muscles. At the end of four days he discovered a large percentage of errors, which increased as the experiment went on. On these healthy German adolescent students he repeated the experiment over and over again, and he found important detrimental effects upon the co-ordination of the brain and the muscles.

The three great characteristics of alcohol on the human brain are :—first, it diminishes the finer muscle co-ordinations and the power of intellectual

work ; second, it accentuates the social instincts of mankind with a tendency to produce a certain kind of happiness—an exaggerated sense of well-being, of *bien-etre*, and a feeling of the ideal in the mind. This is a desirable effect if it were free from danger. The third effect is that it diminishes the power of self control, of inhibition over thought and emotion and conduct. It lessens the brake power over life ; it diminishes the will-power ; it lowers the sense of duty and of consequences.

These are the highest powers possessed by man and the faculties which all men and women should strive their utmost to attain. They are the qualities which all great men and all great races have possessed in a high degree. Therefore, this third effect of alcohol is absolutely evil and sometimes dangerous in the highest degree. Will-power, control, perseverance, thoughtfulness, and a sense of duty being the qualities of all others that a young man learning his business most needs, anything that lessens this, it goes without saying, lessens his business capacity.

There is a fourth effect that is also of great importance with regard to alcohol taken during the adolescent period. It is this. It is a radical character of the constitution of brain and mind that they *form habits*. . . . Now, a habit of taking alcohol is easily formed and becomes a strong feature of the life. Of all dietetic habits it is perhaps the strongest, and with the habit grows a desire which in many brains is apt to become a craving, and alcohol, like many drugs, has in most persons to be increased in dose to get the same effects on the brain.

Now, put all those four things together, and consider them as a whole and you have the entire

problem of drink in relation to the early periods of life. First, co-ordination of muscle and power of mental work; second, adolescence, with its not yet completed brain and mental power, its impulses, its keen desire for happiness, its social cravings, especially its lack of full self-control and the accentuated social feelings and transitory happiness produced by alcohol; third, the lessened self-control and fear of consequences—the motor-car with not enough brake power—produced by drink; fourth, the habit-formation of the brain and mind which is specially characteristic of adolescence. No thoughtful man can resist the obvious conclusion that alcohol is an especially dangerous thing during the adolescent period.

The last consideration I put forward is this: There are brains and brains, minds and minds; some are stable, non-impulsive, not easily influenced; some, on the other hand, are unstable, nervous, impulsive, emotional, poetic, idealistic. We do not know the weak points of every adolescent. It is undoubtedly on the latter class that alcohol exercises its chief fascination and for whom it is the greatest danger. In short, it is often on the brains of finest mould that have unbounded imagination, immense keenness about work, but lack of staying-power and some nervous instability. It is those brains with an innate hereditary instability that run the most danger from alcohol in adolescence.

We find that in almost all the cases of drunkards who have passed into that aggravated state which we call "dipsomania," that is, an uncontrollable craving for drink, the habit began during adolescence, and beginning then, it is almost incurable, resulting in disaster and early death.

As effects of the lack of self-control caused by alcohol in adolescence, a destruction of the moral sense, loss of honour, truthfulness and self-respect, are the absolutely inevitable consequences of the drink craving when it is established.

To lay the foundations of a good business career, beyond any doubt the less alcohol that is taken during adolescence the better. It has many physiological dangers and not a few moral risks. The habits of persistent work, study, application, staying power and sense of duty are the necessary foundations of a successful business career, and those are all in danger through the formation of a liking for drink.

From the strictly medical and bodily points of view the use of alcohol during adolescence is distinctly contra-indicated, as we say in medicine. It has been proved abundantly by physiologists that during the period of development of any living being the presence of alcohol, even in the smallest quantities, is detrimental. Chicks are deformed when they come out of eggs into which a few drops of alcohol have been put, and dogs will not grow up properly if alcohol is added to their food.

The resistive power of the body against disease is notoriously weakened by alcohol It is proved by statistics that consumption is much more common at the younger ages among those who have taken too much drink. The incidence of disease is much more common and the length of life is much shorter among alcoholic adolescents than among sober people. I think it is not denied that the insurance statistics of the abstinence societies go a long way to prove that through the non-use of alcohol a man has a better chance of longevity.

During the period of adolescence I hold that all the facts are against the use of alcohol if young men wish to live out their time and do the best for themselves in business or professional work. I think there are a great many adolescents who fall into the habit of excess in drink, through a simple want of knowledge and through sheer force of the habit of seeing others do the same.

I am convinced that in all social progress knowledge must be the foundation of every improvement we make. Religion may do very much, but knowledge must come in—knowledge that there are these terrible risks, that a man may fall into disease, that his mind may sink into a lower condition than even the lower animals, and this knowledge should have the greatest influence in life.

During my student period I was a total abstainer and I never regretted that practice. I have no doubt that my brain, such as it is, is a better one from having practised total abstinence during adolescence. If these facts of mine are facts, and if the references I have made are correct, then I maintain that I have made a good case for all adolescents abstaining from the use of alcohol.

THE SUPER-FUNCTIONS.—What we find from the persistent use of alcohol is that a man is undone from above downwards. The physical structures and the cells that have to do with self-control, with the will power, and with the formation of sound judgment are the first to be paralysed and ultimately destroyed.—*T. E. Nuttall, M.D., Mayor of Accrington, Dec.* 5, 1909

THE MATERIAL ADVANTAGES OF ABSTINENCE.

AN ABSTINENT WORLD: There can be no doubt whatever—there is certainly no doubt in my mind—that the world would have been physically and morally much better off if such a thing as alcohol had never existed.—*Sir Thomas Crosby, M.D., Ex-Lord Mayor of London.*

BUSINESS ACUMEN: That of the Jew is as conspicuous as his sobriety, and Gentile traders might do worse than ask themselves how far the one is the consequence of and dependent upon the other. —*The British Medical Journal.*

BUSINESS TRAINING: If employers desire their apprentices and young people to learn the work of their warehouses and offices quickly, and soon to become reliable, trustworthy and expert servants, they must strenuously guard them against this besetting peril—the alcohol habit.—*Sir A. Pearce Gould, K.C.V.O., F.R.C.S.*

COMMERCIAL PROSPERITY: I am glad to bear my testimony once again to the fact of Total Abstinence being a most important aid to commercial prosperity as it is an aid to every agency for good that may be employed for the elevation of our race. —*The Rt. Hon. Sir Vezey Strong, P.C., K.C.V.O., Ex-Lord Mayor.*

CURE OF DISEASE: Speaking from the experience of a practice of sixty years, I can honestly say that I know of no malady whatsoever that is in any way answerable for its cure to the existence of

alcohol.—*Sir Thomas Crosby, M.D., Ex-Lord Mayor.*

INCREASE OF TRADE : Expenditure on drink is not only a waste because it deprives those dependent upon ordinary working men of the ordinary comforts and necessities of life, but because in connexion with its manufacture and sale it only employs the smallest percentage of labour. If, therefore, the 160 millions of money spent annually on Drink could be diverted into other more desirable branches of trade there would not then be one man who wants work out of employment.—*The Rt. Hon. Sir T. Vezey Strong, P.C., K.C.V.O., Ex-Lord Mayor.*

PROMOTION : One of the great difficulties of heads of firms is to find a man to promote, there is so little to distinguish one from the other. They are always looking out for some man who is mentally and morally a little above his fellows. Natural gifts will assert themselves more if they are not fettered and hindered by the alcohol habit, and if they are allowed free play you will get the smarter youth showing himself.—*Sir A. Pearce Gould, K.C.V.O., M.S.*

RACIAL PERSISTANCE : One important thing I have learned. It is this : Alcohol apparently does tend to vitiate the hereditary factor and cause a downward trend in evolution. If a person has attained the age of 25 years and has acquired the habit of alcohol taking . . . so far as the evolution of the race is concerned, the world would have been far better if he had not been born.—*Theo. B. Hyslop, M.D., late Physician Superintendent to the Royal Hospitals of Bridewell and Bethlem.*

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ITS APPEAL to the Christian Churches at their annual assemblies, and by sermons in Cathedrals, and other places of worship, led to the formation of the leading denominational Temperance organisations.

ITS INFLUENCE upon the Medical Profession for the past half-century, in promoting research into the nature and effects of alcohol, has produced a mass of valuable evidence in support of Abstinence.

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